

Date: Mon, 27 Sep 93 04:30:20 PDT
From: Ham-Equip Mailing List and Newsgroup <ham-equip@ucsd.edu>
Errors-To: Ham-Equip-Errors@UCSD.Edu
Reply-To: Ham-Equip@UCSD.Edu
Precedence: Bulk
Subject: Ham-Equip Digest V93 #55
To: Ham-Equip

Ham-Equip Digest Mon, 27 Sep 93 Volume 93 : Issue 55

Today's Topics:

 Aluminum Tower Info Needed
For Sale: Lowband Micor, Motran, Mastr Pro, HT
 Kenwood Twins, help needed...
 looking for kenwood mods for th-28a
 Modifying IC-720A to get rid of rotary relay
 More mods for W21AT wanted!
 Motorola Mostar
 Need help! Kenwood TS-700SP

Send Replies or notes for publication to: <Ham-Equip@UCSD.Edu>
Send subscription requests to: <Ham-Equip-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Equip Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-equip".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sun, 26 Sep 1993 13:44:36 GMT
From: swrinde!cs.utexas.edu!wupost!emory!wa4mei!ke4zv!gary@network.ucsd.edu
Subject: Aluminum Tower Info Needed
To: ham-equip@ucsd.edu

In article <7e7Bac3w164w@pillock.moron.vware.mn.org>
stevej@pillock.moron.vware.mn.org (Steven Jarosh, KA0VYB) writes:

>Gary,

>

>Since you seem to have some experience with Dyechem i think everyone reading
>this thread, myself included, would be interested to know the best way to
>use this stuff. It seems rather tedious to apply Dyechem to the entire
>tower. Should we be applying it to the entire tower or are there certain
>stress areas, mounts, etc. that we should concentrating on?

>

>How about an overall discussion by you as to the steps that you normally
>follow?

Ok. Dyechem is a fluorescent dye in a penetrating solvent carrier. It's available in spray cans like those for contact cleaners and spray paints. You clean the surfaces that you wish to test, then spray on the Dyechem, wait for the solvent to evaporate, clean the surface again with a solvent wetted rag, and view under a UV lamp. The dye will glow in any cracks that may exist.

Note: Dyechem will find cracks that extend to the surface, but won't find internal stresses. It's not a substitute for careful inspection of the sections.

Dyechem is fairly cheap, but not cheap cheap, so normally you would only use it on high stress points. These include the joint stubs for the tower sections, the top section tube and taper, and anywhere a bolt hole exists. Normally you can just whack the Z braces with a hammer to determine if the welds are still sound. If that offends you, you can also Dyechem these areas. You should pay particular attention to any area that shows signs of rust, any parts of the leg tubes that exhibit any bulges, etc. This is really important since rust can be an indicator of serious problems, and a bulge almost always means water has at one time been trapped in the leg and frozen. Bulges are immediate grounds for discarding the section. If the rust is only surface rust, or just rust staining caused by improper hardware, then you can clean it up and have the section re-galvanized. Hot dip galvanizing is preferred, and usually available from shops in most areas, but in a pinch you can use cold galvanizing sprays. If you do that, it's mandatory to inspect the sections every six months for signs of returning rust. Paint is no substitute for galvanizing, and may hide problems. I prefer not painting towers, but FAA rules require it in some cases.

After surface cleaning, I lay any tower section on a known flat surface, like the garage floor, flip it over onto each face, and look for any signs of bending or warping. A tower section with a bend or warp greater than 1/4 inch should probably be discarded. Any with 1/2 inch distortion certainly should be discarded. Note, I've had *new* sections with this much warp. I send them back. Trying to straighten warped or bent tower sections is usually a fool's errand. Unless you have the proper equipment, and thoroughly magnaflux the result, you'll likely have an unsafe section on your hands.

I won't reuse hardware. Always use new bolts of the correct grade, stainless is preferred, galvanized is acceptable, and new turnbuckles

and guy cable. Use only approved *stainless* steel tower leg ground kits. Save the brass fasteners for buried ground rods. You don't want copper and steel in direct contact because galvanic action will quickly destroy the connection, and may seriously weaken the tower. Be liberal with the NoAlox compound at all joints.

Gary

--

Gary Coffman KE4ZV	"If 10% is good enough	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	for Jesus, it's good	uunet!rsiatl!ke4zv!gary
534 Shannon Way	enough for Uncle Sam."	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-Ray Stevens	

Date: Mon, 27 Sep 1993 06:53:56 GMT
From: swrinde!elroy.jpl.nasa.gov!grian!morris@network.ucsd.edu
Subject: For Sale: Lowband Micor, Motran, Mastr Pro, HT
To: ham-equip@ucsd.edu

rwoolley@flute.aix.calpoly.edu (Ryan D. Woolley) writes:

>Motorola Micor Mobile, model T51RTN(-)1490B SP10.

>Excellent physical condition, tag says water damage, and indicates that
>Q403 and relay K902 are missing. Tag inside indicates 80 watts out.
>Internal power switch setting can be 25, 50 or 100w. Power amp transistor set
>(removable block) could be worth quite a bit alone.

>Best reasonable offer on anything, you ship COD or by other arrangement, or
>pick up from San Luis Obispo, California. This equipment has been sitting
>around in my garage after a CalTrans auction, and being a student, I just
>don't have much time to work with it, and would like to make a little extra
>cash. I will consider trade or trade with cash for Sun 350 or 360 workstation
>with monitor, if you have one.

What do you know about the micor - is it 4f, 12f, or what? does it have PL? The SP10 indicates it is not a standard micor - it's a special of some kind. Do you have a book on it?

--

Mike Morris WA6ILQ	This space intentionally left blank.
PO Box 1130	
Arcadia, CA. 91077	All opinions must be my own since nobody pays
818-447-7052 evenings	me enough to be their mouthpiece...

Date: 27 Sep 93 04:46:38 GMT

From: news.claremont.edu!ucivax!gateway@uunet.uu.net
Subject: Kenwood Twins, help needed...
To: ham-equip@ucsd.edu

Tried this message before, seemed not to go, apologize if this is dup....

I have tried to revitalize an old pair of Kenwood Twins (R-599 / T-599) and found parasitics that fried the plate choke....the big one wound on ceramic form. Anyone have something like this laying around? Or any advice? One from any old radio running a pair of 6146's ought to do fine for me.

Also, anyone have a manual can tell me the value of resistor R6 on the HV board? Seems to be 470 ohms wirewound at about 5 or 10 watts. Need to confirm.

Anyone with basket cases of Kenwood Twins 599*, can I have the remains?

Clark

.....

Clark Savage Turner, Graduate Student Researcher
Safety Critical Software Group home:
Department of Info. and Computer Science 1514 Verano Place
Irvine, CA. 92717 Irvine, CA. 92715
(714) 856 4049 (714) 856 2131

WA3JPG, QRP #3526, active on HF, VHF and UHF.
ARRL Volunteer Counsel

Date: Mon, 27 Sep 93 00:41:41 GMT
From: sdd.hp.com!spool.mu.edu!sol.ctr.columbia.edu!news.kei.com!ub!
galileo.cc.rochester.edu!uhura.cc.rochester.edu!fval_ltd@network.ucsd.edu
Subject: looking for kenwood mods for th-28a
To: ham-equip@ucsd.edu

Pretty much self-explanitory. I am looking for any modifications for kenwood's HT model TH-28A.

thanks

trey

trey valenta fval_ltd@cc.rochester.edu flva_ltd@uordbv.BITNET
189 milburn street apt #8 n2wju
rochester ny 14607

716.242.9008

--

trey valenta fval_ltd@cc.rochester.edu flva_ltd@uordbv.BITNET
189 milburn street apt #8 n2wju
rochester ny 14607
716.242.9008

Date: Sun, 26 Sep 1993 22:02:34 GMT
From: swrinde!elroy.jpl.nasa.gov!usc!howland.reston.ans.net!usenet.ins.cwru.edu!
magnus.acs.ohio-state.edu!csn!teal.csn.org!dfeldman@network.ucsd.edu
Subject: Modifying IC-720A to get rid of rotary relay
To: ham-equip@ucsd.edu

I have just finished modifying an old IC-720A HF transceiver to replace the rotary relay filter control with a set of reed relays and a small digital circuit to select the appropriate relay and provide feedback to the existing CPU in the radio so it thinks it's still on the rotary relay. The cost for parts was about \$25; the cost of my time was slightly more than that, but it was "fun".

The modification is so far successful, and the radio is much quieter in band switching as well as being more reliable (the old rotary relay was impossible to get mechanically aligned correctly, leading to poor connectivity between the rx/tx and the antenna, as well as many missed stepping pulses).

Summary: Use the step-pulse line to drive a small SPDT relay; use the SPDT relay to drive an R/S flip-flop (built from two nand gates) to provide a clean step signal (the existing step signal has some kind of very high speed clock train superimposed on it and therefore was not usable directly). Feed the pulse train into a CMOS decade counter type 4017. Take the appropriate decade outputs (active high) and recreate the switch-position feedback signals using a small diode matrix ala the original design. Also use the decade outputs through 33K resistors to turn on 2N3904 NPN transistors, which are used to select the appropriate (1 of 7) DPST reed relays. The CMOS chips (the nand gates and the decade counter) can be had at Radio Shack and must be powered from 9V (or so) because the radio does not use 5V logic (of course...)

I mounted the reed relays inside the original low-pass filter subassembly, and the rest of the circuitry on a small perf-board near the SWR module (connected by ribbon cable).

This is not a detailed design description but if you are interested I will provide more details. This project did salvage an otherwise-worthless IC-720A, but I don't think I'd do it again (rather time consuming, but perhaps you can benefit from my experience and save some time).

Inquiries to dfeldman@teal.csn.org 73 Dave WB0GAZ

Date: Mon, 27 Sep 1993 00:43:59 GMT
From: dog.ee.lbl.gov!agate!howland.reston.ans.net!vixen.cso.uiuc.edu!uchinews!
spssig.spss.com!feenix.metronet.com!marcbg@network.ucsd.edu
Subject: More mods for W21AT wanted!
To: ham-equip@ucsd.edu

Well, now, enquiring minds have got to know. When I spoke to Icom the other day on the phone, naturally, they gave out the expanded receive mod. The tech taunted me by telling me that there is a DC to light transmit mod on the radio. Well, does anyone know what it is???

--
/ Marc Grant N5MEI / marcbg@metronet.com /
/ POB 850472 / marcbg@esy.com /
/ Richardson, TX 75085 / 214-231-3998 (voice) /
/ / 214-231-0025 (fax) /

Date: 27 Sep 93 07:17:43 GMT
From: dog.ee.lbl.gov!agate!spool.mu.edu!news.clark.edu!netnews.nwnet.net!henson!
beaker!n9244588@network.ucsd.edu
Subject: Motorola Mostar
To: ham-equip@ucsd.edu

I recently aquired a Motorola Mostar for vhf. I noticed that it had a 15 pin port on the back. What is this port used for? Is it possible to program the radio through this port and if so what kind of signal does it use and in what format? Also how do I get audio off from it as it has no internal speaker? Other than not being where I need it it seems to be in fine working condition.

73

Tollef

Tollef Winslow, KB7DNS | The thoughts expressed here are the sole
voice - (206) 650-2521 | product of my mind, the rest of my body takes
data/fax - (206) 650-2038 | no responsibility for the above stated.

I apologize for the confounded number but the Western Washington Mental Institution to which I am committed doesn't believe in humans, only

numbers.

Date: 26 Sep 1993 15:53:08 GMT
From: swrinde!gatech!destroyer!vela.acs.oakland.edu!vela.acs.oakland.edu!
prvalko@network.ucsd.edu
Subject: Need help! Kenwood TS-700SP
To: ham-equip@ucsd.edu

Hello! Does anyone out there in radio land own an old Kenwood
TS-700S or SP 2 meter all mode rig?

I bought one and can not get it to "key" on CW. I am afraid I am
simply doing something wrong, as the manual is VERY poorly written.

When I tap my CW key, the radio WILL transmit a CW tone but the rig
stays keyed AND transmits for about a second after I release the key.
Sounds like a VOX delay problem but I'm not sure.

I could also use a service manual if anyone has one of those.

Thanks and vy 73! paul WB8ZJL

Date: Sun, 26 Sep 1993 22:12:14 GMT
From: aio!l44db!mike@ames.arpa
To: ham-equip@ucsd.edu

References <5895@eagle.ukc.ac.uk>, <1993Sep24.152515.24784@unocal.com>,
<1993Sep24.203910.19506@enterprise.rdd.lmsc.lockheed.com>
Subject : Re: help on GPS

In article <1993Sep24.203910.19506@enterprise.rdd.lmsc.lockheed.com>
g584741@loads1.lasc.lockheed.com (Lowell Specht) writes:

)
)In article <1993Sep24.152515.24784@unocal.com>, stgprao@st.unocal.COM (Richard
Ottolini) writes:

)> In article <5895@eagle.ukc.ac.uk> eesr@ukc.ac.uk (E.E.S.Ruiz) writes:

)> >

)> > A friend of mine is doing some basic research

)> > to find out what is a GPS (Global Positioning

)> > System) and how it works.

)> >

)

)I am also interested in any information of this kind.

)Any suggestions or perhaps a summary would be appreciated.
)
)>
)> There is a fantastic resource out there called a library
)> for basic questions like these. There are several books
)> on the topic. It has been written up many times in the
)> popular science magazines (periodical guide to the literature).
)>
)> (P.S. This is the 3rd posting on I-am-too-lazy-to-do-the-research-
)> myself-so-lets-pester-the-net I've seen today. Usually doesn't
)> happen until end of term deadlines.)
)
)
)The Internet is an information network and as valuable a resource as the
)library. It's too bad there are people out there who don't appreciate
)this.
)
)--
)Regards,
)Lowell

I emailed this info to the original poster, then noticed he was in the UK.
Might not help him, but here in the US call Trimble Navigation at
408 481 8000 and ask for their *FREE* book 'GPS - A Guide to the Next
Utility'. It's really quite good for an intro to the basics.

Don't worry Mr. Ottolini, I didn't break a nail.

-mike

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***** mike@l44db.jsc.nasa.gov *****
* Michael L. Ross/C33 | Lockheed Engineering & Sciences Co. *
* Robotics Department | 2400 Nasa Rd. 1, Houston, TX 77058 *
*(713)333-7094 voice,(713)333-7201 fax*****boring, eh?****

End of Ham-Equip Digest V93 #55
